

REMARKS

Claims 1-13 are now pending in the application. Claims 1-13 have been amended. Support for the foregoing amendments can be found throughout the specification, drawings, and claims as originally filed. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

Claims 1-13 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

Applicant has amended the claims to address the Examiner's rejection. Therefore, reconsideration and withdrawal of this rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Pub. No. 2004/0165592) in view of Silverman (U.S. Pat. No. 6,731,649). This rejection is respectfully traversed.

Claim 1 calls for "a service entity ... obtaining a calling subscriber address and a called subscriber address ... through analyzing a service request of the calling subscriber". The Examiner asserts that the control server in Chen is analogous to the service entity in claim 1 and the disclosure in Chen such as "the syntax of the policy routing instruction is: <source IP network address, ... destination IP network address

...>” (see para. [0043]) teaches the above limitation. Applicant respectfully traverses the Examiner’s assertion.

Specifically, the disclosure of “the syntax of the policy routing instruction is: <source IP network address, ... destination IP network address ...>” at best appears to discuss that the policy routing instruction carries information including the source IP network address and the destination IP network address. In Chen, policy routing occurs in the ATU-R (see para. [0051]), and is implemented after the SVC (i.e., the QoS connection) has been set up (see para. [0041]). The ATU-R uses source IP network address and the destination IP network address included in the policy routing instruction to determine whether traffic packets match the header pattern or not after receiving the traffic packets (see para. [0041]).

The control server and the ATU-R are two different entities in Chen (see, for example, Figure 1). The control server is responsible for setting up a QoS connection (see paras. [0031] and [0032]), but does not participate in traffic packets routing (see para. [0039]). Hence, the source IP network address and the destination IP network address included in the policy routing instruction are not obtained by the control server.

Further, claim 1 calls for “if there is an upward traffic stream sent from one of the calling subscriber and the called subscriber to the corresponding IP access network for this service, the corresponding edge router informing the corresponding access network end device of the QoS requirement for the service”. The Examiner asserts that paras. [0094], [0095] and [0097] of Chen teach the above limitation. Applicant respectfully traverses the Examiner’s assertion.

Chen at best discloses that “the ATU-R 12 sends a ... SETUP message ... transparently through the DSLAM 14 to ... the ATM switch 15 at steps 515 and 516” and that “[t]he SETUP message likewise includes the AESA of the destination subscriber 40 and the QoS requirement”. (See para. [0095]).

The QoS requirement is included in the SETUP message sent from the ATU-R 12 to the DSLAM. That is, the DSLAM receives the QoS requirement from the ATU-R, which is at the subscriber's premises (see para. [0025]), not from the ATM switch.

Further, claim 1 calls for “If there is a downward traffic stream to be sent to one of the calling subscriber and the called subscriber from the corresponding IP access network for this service, the corresponding edge router setting priority in the corresponding IP access network for this service”. The Examiner asserts that paras. [0043], [0005] and [0047] of Chen in combination with columns 7, 10 and 11 of Silverman teach the limitation of “if there are downward traffic streams of the access network in this service, the edge router setting priority in the access network for this service”. Applicant respectfully traverses the Examiner’s assertion.

Chen does not appear to distinguish between the upward traffic stream and the downward traffic stream. Further, Chen does not provide different processes for dealing with the upward traffic stream and downward traffic stream at the corresponding edge router, wherein the upward traffic stream is sent from the subscriber to the IP access network, and the downward traffic stream is sent from the IP access network to the subscriber. The upward traffic stream refers to a direction from the subscriber to the access network end device, and from the access network end device to the edge router.

Moreover, Chen does not teach “the corresponding access network end device processing the upward traffic stream according to the QoS requirement informed by the corresponding edge router” and “forwarding the downward traffic stream to the corresponding subscriber according to the priority set by the corresponding edge router”.

Silverman at best discloses that “TDM packets can be tagged by a ToS field in the IP header to get high priority when going through the IP network”. (See column 7, lines 11-14). Applicant can find no teaching in Silverman that the upward traffic stream and the downward traffic stream should be distinguished. Applicant submits that Silverman fails to cure the above deficiencies of Chen.

In view of the foregoing, Applicant submits that claim 1 and its dependent claims 2-13 define over the art cited by the Examiner.

In addition, claim 13 calls for “edge routers ... judging whether enough resources can be provided for this service according to current resource condition” and “performing bandwidth limitation, by the access network end device, for the upward traffic stream” after “the corresponding edge router informing the corresponding access network end device of the QoS requirement for the service”.

Chen at best appears to disclose that the connection server determines if sufficient bandwidth exists in the ATU-R and DSLAM. That is, the connection server decides whether enough resources can be allocated for the service. Chen does not disclose that after the resources are allocated to the service, the access network end device should perform bandwidth limitation, i.e., the access network end device controls

upward traffic streams of the service transmitted through itself not to occupy more resources than allocated.

In view of the foregoing, Applicant submits that claim 13 defines over the art cited by the Examiner additionally for these reasons.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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